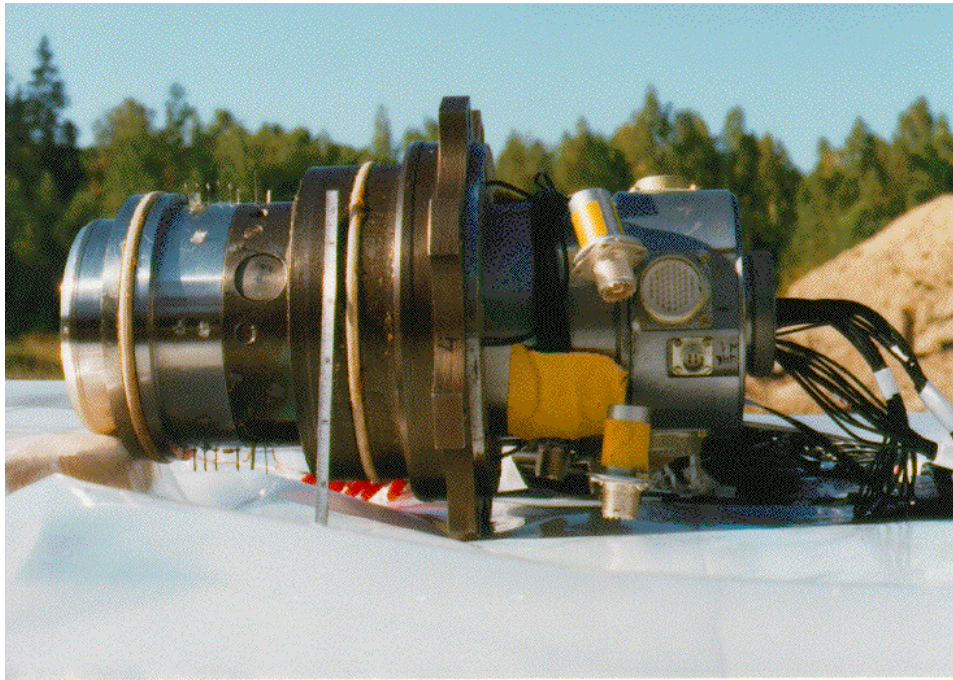


A VIEW OF THE HEL-1 DEVICE ON THE SHOT PAD



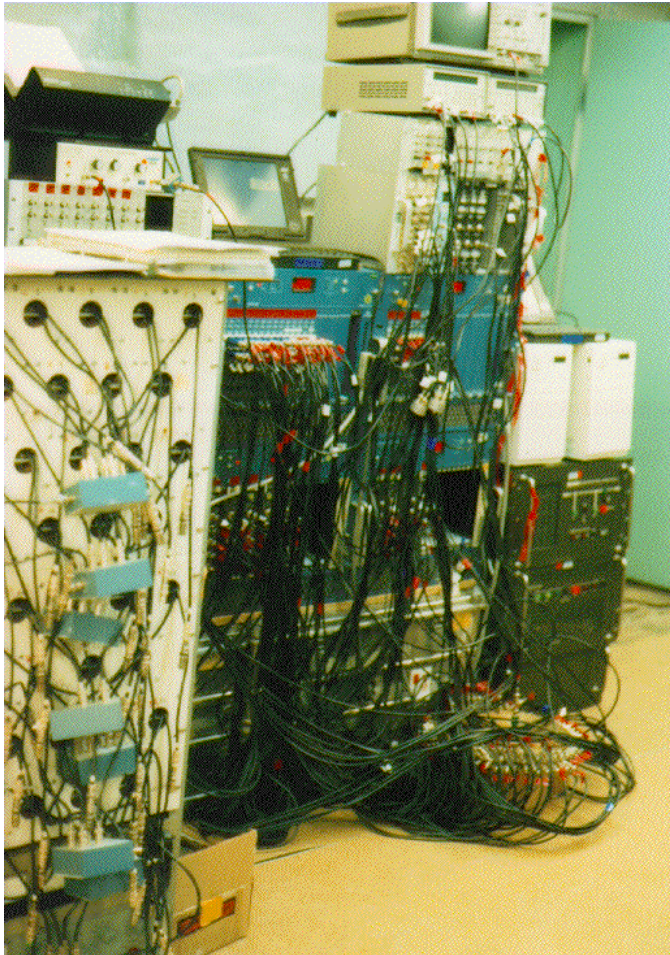
- Helical generator for seed current.
- Five 1-m diameter disk generators.
- Aluminum liner, 24-cm initial radius, 4-mm thick.
- Mounted vertically with load at the bottom.

CENTRAL MEASURING UNIT (CMU) WAS VERY COMPACT AND COMPLEX



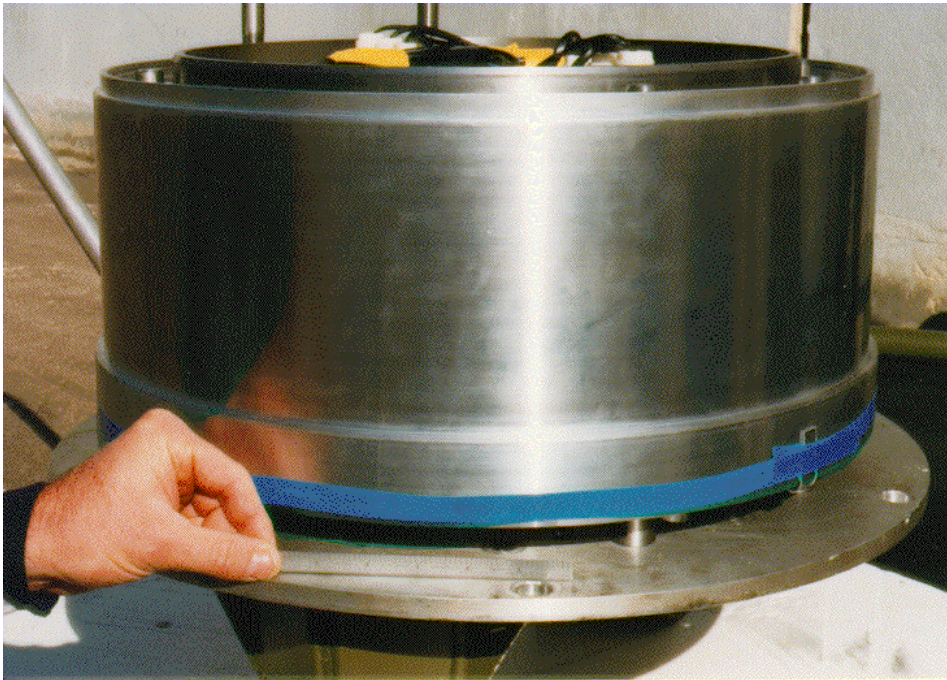
- **LANL DIAGNOSTICS**
 - 30 optical pins
 - 2 B-dot probes
- **VNIEF DIAGNOSTICS**
 - 26 diagnostic locations on CMU
 - Optical pins
 - Electrical pins
 - Manganin probes
 - Resistive press.

LANL RECORDING SYSTEM IN THE VNIIEF BUNKER



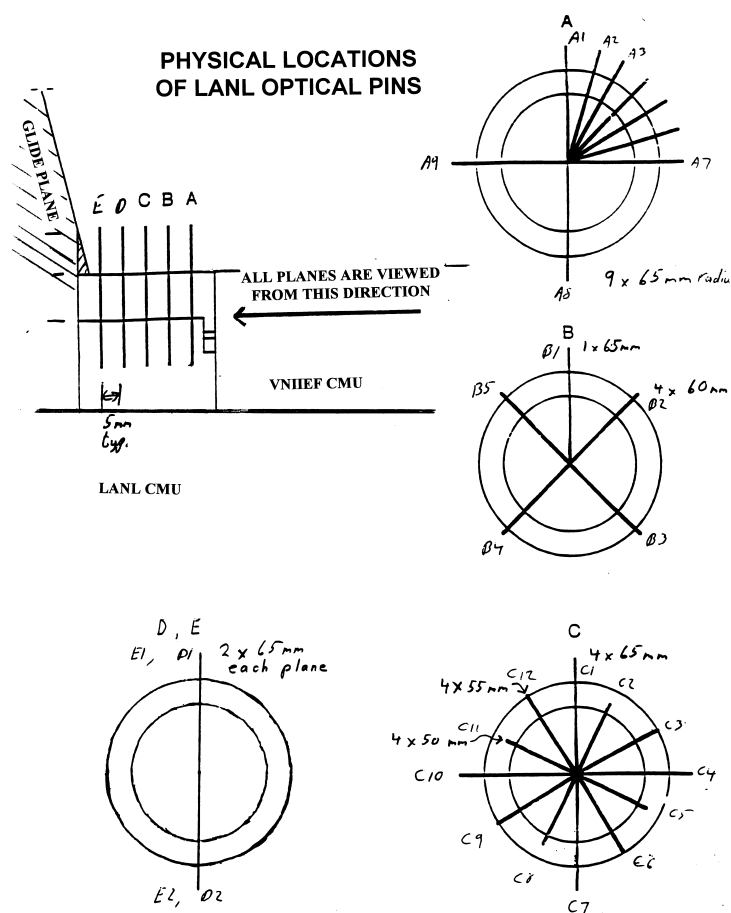
- 58 digitizer channels
- 30 optical impact pins
- 9 current and voltage probes recorded on 19 digitizer channels
- Two Faraday rotation fibers recorded on 7 digitizers
- UPS systems provide power line isolation
- Data recorded on Pentium notebook computer

HEL-1 LINER



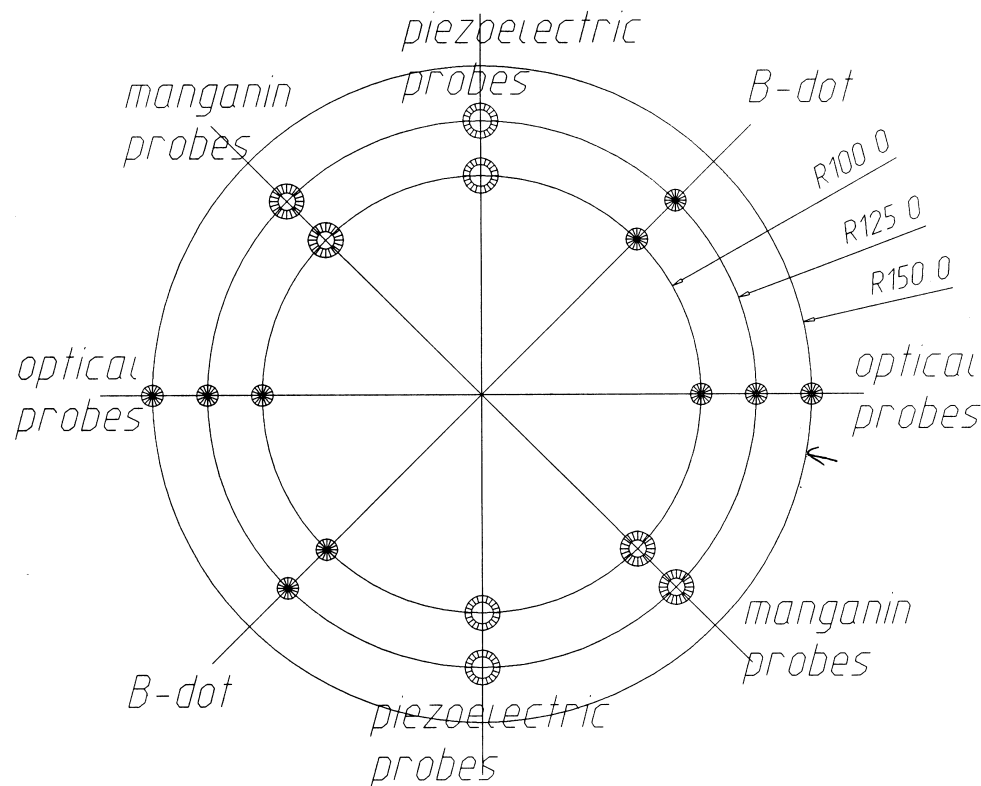
- **Aluminum alloy**
- **Outside diameter: 48-cm**
- **Height: 10-cm**
- **Thickness: 4-mm +/- 10-microns**
- **Surface finish**
 - outside: .32-micron
 - inside: .63-micron
- **Eccentricity: 50-microns**
- **Liner mass: 977-gm**
- **Fabricated at VNIIEF**

DIAGRAM OF LANL OPTICAL PINS



- 30 pins arranged in 5 planes
- Planes separated by 5-mm
- Maximum pin pro-trusion was 10-mm
- Pins arranged to provide data on symmetry of impacting liner

LAYOUT OF VNIIEF GLIDE PLANE DIAGNOSTICS



- **Glide plane probe set will provide information on liner velocity at 100-mm radius**
- **Data from one pair of Piezoelectric probes and one pair of B-dot probes was given to LANL team**